CLAIMS

1.   A method of wireless communication comprising:

5   transmitting at least one data burst using an assigned one of at least two radio configurations, the radio configuration assigned in response to a higher data transmission rate determined by calculating the data transmission rate for the at least one data burst based on a power level and Walsh code for each of the at least two radio configurations.

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2.   The method of Claim 1, wherein the step of calculating the data transmission rate comprises:

      evaluating the power level for each radio configuration; and

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      evaluating the availability of Walsh codes for each radio configuration.

3.   The method of Claim 2, wherein the step of evaluating the power level
20   for each radio configuration comprises:

      evaluating the power level without the at least one data burst; and

      evaluating the power level for the at least one data burst.

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4.   The method of Claim 3, wherein the evaluated power level for the at least one data burst comprises:

evaluating the power level at an onset of the at least one data burst.

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5.   The method of Claim 4, comprising

if the calculated data transmission rate is about equal for each radio

10   configuration, comparing a channel power with a threshold.

6.   The method of Claim 5, comprising:

15   if the channel power is at or below the threshold, assigning the one of the radio configurations with a higher of maximum number of traffic Walsh codes of at least two radio configurations; and

if the channel power is above the threshold, computing a power

20   utilization and Walsh code utilization for each radio configuration.

7.   The method of Claim 6, wherein the step of computing a power utilization for each radio configuration comprises:

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for each radio configuration, dividing the power in use during the at least one data burst by a maximum traffic transmission power.

8.   The method of Claim **6**, wherein the step of computing a Walsh code utilization for each radio configuration comprises:

5   for each radio configuration, dividing the Walsh codes in use during the at least one data burst by a maximum number of traffic Walsh codes.

9.   The method of Claim **8**, wherein the step of dividing the Walsh codes

10   in use comprises:

            considering Walsh code blocking between codes of different length in response to available Walsh code orthogonality rules.

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10.   The method of Claim **6**, comprising:

            assigning the radio configuration supporting having a ratio of power utilization to Walsh utilization closest to at least one of unity and a

20   tunable value about unity.

11.   The method of Claim **6**, wherein the at least two radio configurations comprises at least one of RC3 and RC4.

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12.   A method of wireless communication comprising:

receiving at least one data burst using an assigned one of at least two radio configurations, the radio configuration assigned in response to a

5   higher calculated data transmission rate determined by calculating the data transmission rate for the at least one data burst based on a power level and Walsh code for each of the at least two radio configurations.

10   13.   The method of Claim 12, wherein the step of calculating the data transmission rate comprises:

evaluating the power level for each radio configuration; and

15   evaluating the availability of Walsh codes for each radio configuration.

14.   The method of Claim 13, wherein the step of evaluating the power level for each radio configuration comprises:

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evaluating the power level without the at least one data burst; and

evaluating the power level for the at least one data burst.

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15.   The method of Claim 14, wherein the evaluated power level for the at least one data burst comprises:

evaluating the power level at an onset of the at least one data burst.

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16.   The method of Claim **15**, comprising

        if the calculated data transmission rate is about equal for each radio
        configuration, comparing a channel power with a threshold.

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17.   The method of Claim **16**, comprising:

        if the channel power is at or below the threshold, assigning the one of

10   the radio configurations with a higher of maximum number of traffic
        Walsh codes of at least two radio configurations; and

        if the channel power is above the threshold, computing a power
        utilization and Walsh code utilization for each radio configuration.

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18.   The method of Claim **17**, wherein the step of computing a power
        utilization for each radio configuration comprises:

20   for each radio configuration, dividing the power in use during the at
        least one data burst by a maximum traffic transmission power.

19.   The method of Claim **17**, wherein the step of computing a Walsh code

25   utilization for each radio configuration comprises:

        for each radio configuration, dividing the Walsh codes in use during
        the at least one data burst by a maximum number of traffic Walsh
        codes.

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20.   The method of Claim **19**, wherein the step of dividing the Walsh codes in use comprises:

5   considering Walsh code blocking between codes of different length in response to available Walsh code orthogonality rules.

21.   The method of Claim **17**, comprising:

10   assigning the radio configuration supporting having a ratio of power utilization to Walsh utilization closest to at least one of unity and a tunable value about unity.

15   22.   The method of Claim **17**, wherein the at least two radio configurations comprises at least one of RC3 and RC4.